

ABSTRACT

A method for forming a pultruded part includes collating reinforcing fibers by providing a first layer of reinforcing rovings extending in the longitudinal pultrusion direction, applying onto the first layer an intermediate layer of reinforcing fibers at least some of which include at least portions thereof which extend in the transverse direction and covering the intermediate layer with a second layer of rovings extending in the longitudinal direction. Alternatively the transverse fiber layer is formed on the inside surface of a hollow part. To the collated fibers is applied a urethane resin so as to permeate through the layers and the materials are passed through a die to form a thermo-set cross-linked poly-urethane. The transverse layer or layers are relatively thin having a weight less than or equal to 0.5 ounces per square foot and more preferably as low as 0.25 ounces or 0.1 ounces.